

Application No. 10/512,011

Title: A DEVICE AND A METHOD FOR SAMPLING OF MILK

Response to Office Action dated June 8, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A device for sampling of milk from an animal, the milk of which is to be tested, wherein the device comprises:

a collecting member arranged to receive milk samples from a milk line, which is arranged to transport milk from one animal at a time; and

a passage arranged to allow a milk flow from the milk line to the collecting member;

wherein the device further comprises flow means arranged to provide a milk flow, from the animal, through at least a part of the passage at least a time period before a milk sample is taken in order to rinse at least said part of the passage from milk residues from a previously milked animal;

wherein the device further comprises a conduit loop having a first end connected to the milk line and a second end connected to the milk line at a distance from the first end, wherein at least a first part of the conduit loop is comprised in said passage.

2. (previously presented) A device according to claim 1, wherein the milk line comprises a collecting container, wherein the passage is arranged to allow a milk flow from the collecting container to the collecting member.
3. (cancelled)

4. (currently amended) A device according to claim [[3]] 1, wherein the first part of conduit loop has an extension from the first end to a valve member, which is arranged to allow a discharge of the milk in the conduit loop to the collecting member.
5. (previously presented) A device according to claim 4, wherein the valve member comprises a three-way valve.
6. (previously presented) A device according to claim 4, wherein the device further comprises a second conduit having an extension from the valve member to the collecting member, which second conduit constitutes a second part of the passage.
7. (currently amended) A device according to claim [[3]] 1, wherein the first part of conduit loop has an extension from the first end of the conduit loop to a collecting member which is arranged in the conduit loop.
8. (previously presented) A device according to claim 7, wherein the conduit loop comprises a valve, which in a closed position is arranged to accumulate stagnant milk in the collecting member.
9. (previously presented) A device according to claim 1, wherein the device further comprises a valve arranged in the milk line, wherein passage comprises at least an opening of the valve.
10. (currently amended) A device according to claim [[3]] 1, wherein said flow means is arranged to provide the milk flow in at least said part of the passage as soon as milk from the animal flows in the milk line at the first end of the conduit loop.

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11. (previously presented) A device according to claim 1, wherein the flow means comprises a pump.
12. (previously presented) A device according to claim 1, wherein the milk flow provided by the flow means is gravity aided.
13. (previously presented) A device according to claim 1, wherein the device further comprises an analysing device, which is arranged to analyse the milk in the collecting member.
14. (previously presented) A device according to claim 13, wherein the analysing device is arranged to provide a count from the group consisting of somatic cells, fat droplets, and combinations thereof, in the milk sample.
15. (previously presented) A device according to claim 14, wherein the analysing device is arranged to add chemical substances to the collecting member in order to provide the count of the group consisting of somatic cells, fat droplets and combinations thereof in the milk sample.
16. (previously presented) A device according to claim 14, wherein the analysing device is arranged to use a camera system to record images of the milk sample in the collecting member in order to provide the count from the group consisting of somatic cells, fat droplets, and combinations thereof.
17. (previously presented) A device according to claim 1, wherein the device further comprises a control unit arranged to control the milk sampling process.

18. (previously presented) A device according to claim 17, wherein the control unit is arranged to initiate sampling of the milk only after that a certain amount of milk from the animal has passed through at least said part of the passage.
19. (previously presented) A device according to claim 17, wherein the control unit is arranged to control the activation of said flow means.
20. (previously presented) A device according to claim 17, wherein the control unit is connected to a reading device and arranged to receive information from the reading device about the identity of the animal.
21. (previously presented) A device according to claim 17, wherein the control unit is connected to a flow meter and arranged to receive information from the flow meter about the presence of a milk flow in the milk line.
22. (previously presented) A device according to claim 17, wherein the control unit is connected to an analysing device and arranged to receive information from the analysing device about the results of the milk samples.
23. (currently amended) A device according to claim ~~[[3]]~~ 1, wherein the conduit loop has a smaller inner cross-section area than the milk line.
24. (previously presented) A device according to claim 1, wherein the device is connected to a milk line, which is arranged to transport milk from one teat of an animal at a time.

25. (previously presented) A device according to claim 1, wherein the device is connected to a milk line, which constitutes a part of an automatically controlled arrangement for milking of animals.
26. (previously presented) A device according to claim 25, wherein the arrangement comprises a milking robot.
27. (previously presented) A milking robot comprising a device according to claim 1, wherein the device constitutes an integrated part of a milking robot.
28. (currently amended) A method for sampling of milk from an animal, the milk of which is to be tested, comprising the steps of:

providing a device comprising a collecting member arranged to receive milk samples from a milk line which is arranged to transport milk from one animal at a time, and a passage arranged to allow a milk flow from the milk line to the collecting member, said device further including a conduit loop having a first end connected to the milk line and a second end connected to the milk line at a distance from the first end, at least a first part of the conduit loop is comprised in the passage, said method further comprising the step of:

providing a milk flow from the animal through at least a part of the passage at least a time period before a milk sample is taken in order to rinse at least said part of the passage from milk residues from a previously milked animal, wherein at least a part of the milk flow from the animal flows into the first end of the conduit loop.

29. (previously presented) A method for collecting milk from an animal comprising the step of milking an animal using an arrangement for the milking of animals which includes a device according to claim 1.
30. (previously presented) A milking robot, wherein the milking robot comprises a device for sampling of milk from an animal the milk of which is to be tested, a collecting member arranged to receive milk samples from a milk line, which is arranged to transport milk from one animal at a time, a passage arranged to allow a milk flow from the milk line to the collecting member, and an analysing device arranged to provide a count of the group consisting of somatic cells, fat droplets, and combinations thereof in the milk sample, wherein the milking robot comprises flow means arranged to provide a milk flow, from the animal, through at least a part of the passage at least a time period before a milk sample is taken in order to rinse at least said part of the passage from milk residues from a previously milked animal,
- wherein the device further comprises a conduit loop having a first end connected to the milk line and a second end connected to the milk line at a distance from the first end, wherein at least a first part of the conduit loop is comprised in said passage.